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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,733	06/22/2006	Louis Montagne	FR040004	9955

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EXAMINER

LEE, GUNYOUNG T

ART UNIT	PAPER NUMBER
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2875

MAIL DATE	DELIVERY MODE
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03/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,733	Applicant(s) MONTAGNE, LOUIS	
	Examiner GUNYOUNG T. LEE	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/22/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed, such as "Lighting device having cylindrical lens".

Claim Objections

3. Claim 1 is objected to because of the following informality:
 - On line 2 of claim 1, a phrase "characterized in that" renders the claim indefinite, it is advised to remove (or substitute with other term) the phrase from the claim.Appropriate correction is required.

Claim Rejections - 35 USC § 103

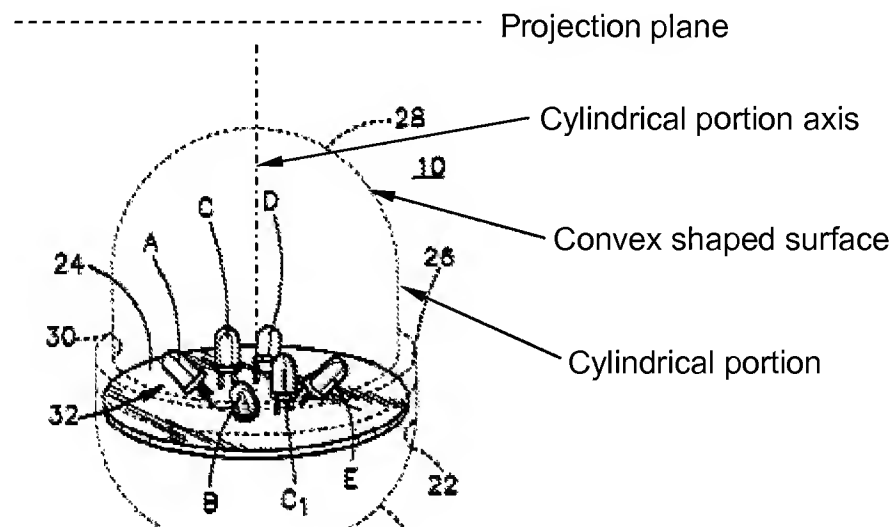
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,227,679).
6. In regard to claims 1-2, 4 and 6, Zhang et al. disclose a lighting device having:

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- At least a light source (C, C1) for emitting light rays (col. 3, lines 59-62) and means (considered a cover lens, 28, and encapsulating lens of the light emitting diodes, C and C1, which is well known and available knowledge to one of ordinary skill in the art that LED chip is enclosed by a resin/epoxy lens) for guiding the light rays on a projection plane (assumed a plane parallel to a board, 32, and illustrated in the picture below);



- The guiding means (Fig. 2) comprises the (cover) lens (28) presenting a cylindrical portion (as shown in the following picture above) extending along an axis;
- Wherein the axis of the cylindrical portion (as shown in the following picture on above) is perpendicular to the projection plane;

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- The (cover) lens (28) comprises at least a convex shaped surface (as shown in the following picture on page 3) extending at an extremity/(first-end) of the cylindrical portion;
- The cylindrical portion (as shown in the following picture on page 3) has a circular base (Fig. 2);
- The convex surface (as shown in the following picture on page 3) is an hemispherical surface (Fig. 2) symmetrical in rotation around the cylindrical portion axis; and
- The light source (C, C1) comprises (col. 3, lines 58-59) a plurality of light emitting diodes (LEDs).

7. Zhang et al. do not expressly disclose that the projection plane is perpendicular/normal to the cylindrical axis, as assumed and illustrated in the preceding section on page 3. However, this assumption is reasonable because it is well known and available knowledge to one of ordinary skill in the art that a projection plane of a LED light source is normal to the cylindrical axis of the LED and the LED light sources (C, C1) of Zhang et al. is oriented (Fig. 2) normal/perpendicular to the board (32) (col. 3, lines 58-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the projection plane of the LED light sources (C, C1) as being normal to the board, 32, in the lighting device of Zhang et al., for the purpose of providing a sufficient illumination into the direction normal to the board which is the optical axis of the lighting device.

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8. Please note regarding claims 1 and 7 that statements (on lines 5-6 of claim 1 and on line 2 of claim 7) with a term suggesting or making optional (i.e. "adapted to") have been given little patentable weight, because the statements do not positively recite structural limitations (see MPEP § 2106).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,227,679), as applied to claim 1 above, and further in view of Johnson (US 5,463,280).

10. In regard to claim 3, Zhang et al. disclose the invention substantially as claimed except that the (cover) lens does not have a convex surface at a second extremity/end of the cylindrical portion. Johnson discloses a LED lighting device having a cylindrical portion (Fig. 1), wherein two convex surfaces are extending at both/(first and second) ends/extremities of the cylindrical portion (Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the convex surfaces on both (first as well as second) ends of the cylindrical portion as shown in Johnson for the lighting device of Zhang et al., for the purpose of increasing the range of angle illuminated by the LED light sources while improving the appearance the lighting device.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,227,679), as applied to claim 1 above.

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12. In regard to claim 5, Zhang et al. disclose the invention substantially as claimed except that the convex surface is not parabolic. Since it has been held by the courts that where the general conditions (having convex surface) of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable shape (for the convex surface) by routine experimentation (*In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235), it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the parabolic convex surface for the (cover) lens in the lighting device of Zhang et al., for the purpose of providing the optimal light distribution into the desired area (i.e. the projection plane).

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,227,679), as applied to claim 1 above, and further in view of Weinreich (US 3,739,169).

14. In regard to claim 7, Zhang et al. disclose the invention substantially as claimed except that the projection plane is not a sheet of a transparent material. Weinreich discloses a lighting device having a projection plane (107a) (Fig. 3), wherein the projection plane (107a) is a plate/sheet of a transparent material (col. 5, lines 34-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the transparent plate as shown in the Weinreich for an enclosure for the lighting device of Zhang et al., for the purpose of providing a protection to the device without interrupting the distribution of the lights emitted from the lighting device.

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15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,227,679), as applied to claim 1 above, and further in view of Bernier (US 2,478,891).

16. In regard to claim 8, Zhang et al. disclose the invention substantially as claimed except that an optical element presenting features is not used with the lighting device. Bernier discloses a lighting system having a light source (10), a lens (14) and an optical element (12), wherein the optical element (12) is placed (Fig. 1) beyond the lens (14) with respect to the light source (10), and the optical element (12) is presenting features (Figs. 1 and 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lighting device of Zhang et al. with the feature presenting optical element as shown in Bernier, for the purpose of providing a desired information and/or images on the projection plane for the user or pedestrians.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Starr (US 3,654,451) and Simon (US 7,123,419) show lighting devices having light sources and cylindrical lenses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gunyoung T. Lee whose telephone number is (571) 272-8588. The examiner can normally be reached between 7:30 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached at (571) 272-2378. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Gunyoung T. Lee/
Examiner, Art Unit 2875

3/5/2009